From investment managers to book writers, from risk managers to quants, from baseball players to musicians, the universe of mmf alumni continues to grow. And this year's class is busy at work already. mmf is always proud of our students and alumni, but it is particularly rewarding to witness them progress through the ranks, and achieve increasing levels of seniority at their institutions, and in some cases even emerge as true business leaders. With this growth comes a new phenomenon, which is the development of intern-mmf business relationships. mmf alumni on the buy side are talking business with mmf alumni on the sell side; service providers engage in mmf-centric sales presentations to their mmf family members. And this is true not just in Canada, but on a worldwide basis, and our recent reception in Asia provided us with a first-hand look at how mmf is sedimenting in that part of the world. This brings a very interesting new dimension to the value of our brand. Not without an element of coincidence, we created a while ago the alumni web site, where students, past and present, can go and check who their fellow druids are; our hope is that they will continue to perform the mmf wizardry amongst them, to further develop them as business leaders, as honourable employees, and as people.

\textit{-mmf Director, Luis Seco}
Please describe in detail how your career path has taken you from mmf to where you are now?

I joined the Treasury desk of Export Development Canada (EDC) in September 2001 as a Portfolio Manager. EDC provides financial solutions in support of Canadian international trades. For example, EDC lends to foreign buyers of Canadian exports.

EDC’s Treasury department borrows on the capital markets through bond issuance to fund such activities. The Treasury department also invests EDC’s liquidity holdings and manages asset-liability mismatches on EDC’s balance sheet.

I initially focused on EDC’s structured notes issuance and their associated swaps. EDC issues structured notes to borrow low cost money. It then uses structured swaps to hedge their inherent market risk. I quickly developed an in-depth expertise regarding valuation models of such products.

EDC promoted me to Senior Financial Engineer in 2007. It aimed to bring my capital markets and analytical expertise to other portfolios. I put in place a multibillion dollar portfolio management framework to manage EDC’s capital base while neutralizing market risk. I also coordinated and executed numerous swap hedges as part of EDC’s public bond issuance program. Finally, I developed an advisory function to other EDC teams who required expert capital markets advice.

In recognition to my expanding role, EDC named me Principal Financial Engineer in the fall of 2010. In that role, I expanded my advisory function to EDC’s lending teams. I also developed an education function through finance lectures at EDC and the University of Ottawa. Since April 2012, I have been working with EDC’s Project Finance team on a six months temporary assignment.

Why did you choose mmf?

I chose the Master of Mathematical Finance (mmf) because it seemed the best way to make the jump from mathematics to finance.
Q & A with François Villeneuve cont’d:

What are the demands and challenges that typically accompany this type of work?

As EDC’s sole shareholder, the Government of Canada requires it to pursue a public policy mandate (i.e. support and develop Canada’s export trade) while operating in a commercially sustainable manner. Those two directives often contradict each other. A successful EDC employee should smoothly navigate through the ambiguity and put forward solutions that satisfy both requirements.

What abilities do you think are most important to be successful in this specific occupation?

The obvious ones revolve around what an mmf student learns during the course of the program. Then, one should quickly learn how the market works and how to smoothly execute derivatives transactions. Finally, one should develop the ability to get things done with tact, regardless of bureaucracy and office politics.

Is this a rapidly growing field? Is it possible to predict future needs for workers in this field?

The EDC workforce has experienced limited growth since I joined almost 11 years ago. EDC continuously finds ways to generate cost savings, thereby reducing the need to expand its workforce. EDC then re-invests those cost savings in initiatives that improve Canada’s success in international trade.

What are the rewarding aspects of your work?

International trade makes a significant contribution to Canada’s prosperity. As part of the EDC team, I can make a direct impact on Canada’s economic success in the world. I find it rewarding to connect my work to the lives of Canadian people.

Events in the last year.

It has been a busy start to the year 2012/2013 at mmf.

There were close to 500 applications, 180 interviews and a class size of 32.

The mmf students were invited to more information sessions for full time rotational programs than any other year. Sessions were held at CIBC, Scotiabank, Bank of Canada, National Bank, Omers, Bank of Montreal,

Internship sessions were held at Manulife and Ontario Teachers Pension Plan (OTPP).

We participated in a conference in Beijing China 3-C Risk Forum at Beihang University where Dr. Luis Seco was the keynote speaker.

We held a small reception for our alumni and industry contacts in Beijing. It was hosted by Beijing Innofi Management Consulting Company.

Recently, I was in NYC and had dinner with our Alumni. It was great for graduates from different years to meet and form relationships in the Big Apple.

We are reaching out to our alumni – a reception is planned for Mexico City in May 2013.

We are in the process of planning receptions in the following cities:

- London
- New York
- Beijing
- Shanghai
- Hong Kong
- Singapore

We have implemented a new web-based internship CV list where our sponsors can see in real time which students are available for internships. This is working very well. Please contact shari.kurgatnikov@utoronto.ca if you want to view the CV’s.

We are reaching out to all of our Alumni. Please visit our website: http://www.mmf.utoronto.ca/ and enter your information/CV to have this information available for all alumni.

No one should pass a moral judgement on your answers. This is not a test. There’s no right or wrong. Answering truthfully will lead to what’s right for you. Your answers provide you with the clues you need to shape a fulfilling and happy life. Ultimately isn’t that what we all want? ¶
MICHAEL CHANG IS AN ANALYST AT CPPIB, AND AN mmf GRADUATE FROM 2011.

“As with most quantitative finance jobs, problem solving skills are very important. However, I think it is just as important to take a step back and think about how my current role and tasks are linked to the departmental and company objectives.”

Q & A

Why did you choose mmf?

There are several mathematical finance programs in Canada with different sets of strengths and weaknesses. I was drawn to mmf due to the program’s close proximity to Bay Street, lectures that are run by industry professors, and the strong track record of internship and full time placement. Some of the other programs are more academic in nature, and may be more attractive to individuals who wish to pursue further education post graduation. I think the strengths of the mmf program are its connection to the industry and the ability to gear program materials toward demands in the job market.

What are your primary job responsibilities?

Currently I work in Total Portfolio Management (TPM) at CPPIB Investment Board. TPM – as the name suggests – manages the fund with their focus on what benefits the portfolio as a whole in contrast to other investment departments whose focus is on specific investment programs. The department leads the design of the CPPIB Reference Portfolio, risk budgeting for the total active portfolio and evaluates the risk-return properties of investment strategies and opportunities in the context of the total portfolio. My primary job responsibility is to develop and maintain the quantitative framework and tools needed to support TPM.

Did your internship during the mmf program kick start your career? How so?

My internship experience was certainly beneficial. I worked at the credit trading desk at Ontario Teachers’ Pension Plan (OTPP). I was mainly involved in trading strategy research and assisted with their newly launched convertible arbitrage program. The mathematical rigor of mmf together with the practical experience from the internship helped in getting job interviews at places I wanted to work.
Q & A with Michael Chang cont’d:

What abilities do you think are most important to be successful in this specific occupation?

As with most quantitative finance jobs, problem solving skills are very important. However, I think it is just as important to take a step back and think about how my current role and tasks are linked to the departmental and company objectives. The most complicated task may not be the most important task, and this exercise may help prioritize the work at hand.

How would you describe the atmosphere and/or culture of your work place?

I find TPM to be extremely practical in our approach to solving problems, but a lot of our framework stems from theoretical grounds. Our culture is very collaborative in nature, and different groups within TPM will interact on a daily basis to tackle tasks together. Different groups have different expertise and perspective, and I think our strong working relationship differentiates us from other workplaces.

What inspired you, or motivated you, to pursue this career path?

During my undergraduate studies in engineering, I was looking for a co-op placement outside of Canada to experience working outside my usual comfort zone. I wasn’t looking for anything specific, and luckily landed a placement at a hedge fund in New York as a programmer. I was attracted to the dynamic nature of the investment industry and the challenges people were trying to solve (this was during the beginning of the sub-prime mortgage crisis). From then on, most of my interviews were at buy-side companies, with Barclays Global Investors being my next co-op placement. So personally, a career path in investment management was a natural choice.

What career advice would you give to a new mmf graduate?

In 2011, my fellow mmfers and I were actively interviewing and looking at the job market for new postings. Job search may be stressful at times, and there is always the risk of waiting too long for the perfect job. But I still think that it is very important to take your time and really think about the career path you wish to pursue, and how different opportunities can help you get there.
Please describe in detail how your career path has taken you from MMF to where you are now?

After MMF, I decided to continue with academia, at least for the time being, and pursued a PhD in the Dept of Statistics. My research in algorithmic trading has landed me an internship at BMO Capital Markets for the summer of 2012.

How did you find out about MMF?

Having done my undergrad at UofT, MMF was a popular topic among students and professors when it came to graduate programs.

Why did you choose MMF?

At the time of application, I was eager to join the workforce. I was looking for a program that taught finance from a quantitative foundation and provided promising internship and full-time opportunities.

What are the greatest challenges and rewards of being a TA for the MMF program?

The greatest challenge has to be trying to cater the delivery of course material to the diverse background of each student.

Q & A

JASON RICCI, MMF ALUM and MMF TA

TA for MMF program

PhD Candidate

University of Toronto
Department of Statistics

Research interests: Analysis of algorithmic trading strategies via stochastic control theory Application of self-excited processes to market microstructure modeling

Analyst

BMO Capital Markets

Analyst in Financial Products in the MFL (Mathematical Finance Library) group

Financial Engineer

Manulife Financial

Worked on the Derivative Strategy team in the Variable Annuity Hedging Department

Master of Mathematical Finance

University of Toronto

2009 - 2010

Honors Bachelor of Science

University of Toronto
Specialist in Actuarial Science (Department of Statistics)
Graduated with High Distinction NSERC Undergraduate Student Research Award, Woodsworth College Certificate of Academic Excellence, Woodsworth College Dorothy Helen McRobb Scholarship

2005 - 2009

Pending publication: Buy Low, Sell High: A High Frequency Trading Perspective
Winner of the BMO Capital Markets Advanced Research Scholarship for 2012
Winner of the Ontario Graduate Scholarship (OGS) for 2011-2012 and 2012-2013
Welcome to
The 2nd 3-C (China, Canada and US) Risk Forum
& The 5th International Conference on
Engineering and Risk Management

mmf receptions in Beijing,
New York & Toronto
3-C Conference in Beijing

http://www.mmf.utoronto.ca